The case cited by the Examiner, *Ex parte Grasselli*, is not relevant to the present facts. In that case, there was no literal support in the specification for the limitation. In contrast, there is literal support in the present specification for the limitation.

Accordingly, reconsideration is solicited.

Claims 9-11 and 17-20 are again rejected under 35 USC 103 as unpatentable over Goettmann. This ground of rejection is again respectfully traversed.

The Examiner stated that the Kuraray brochure was not attached to the Applicant's last response. Another copy of the brochure is enclosed for the Examiner's review.

The Examiner suggested that a Declaration be provided describing the double refraction of EP 043.

1. With respect to polyester fiber

(i) Double refraction (Δn)

The Applicants submit the attached Declaration under Rule 132 of Mr. Takanori Shinoki with respect to double refraction (Δn).

As described in the Declaration, polyester fiber having a double refraction (Δn) of 0.170 or more is specifically designed as described in the present specification, not being available in the market at the time when the present invention was made.

Type 108 polyester staple by Hoechst/Celanese and the brochure thereof were not available in the market. However, 108 polyester staple is easily expected to be the same type of polyester fiber as EP043 which is a conventional fiber not having such Δn as specified in the present invention because Goettmann relates to a mere conventional technique to produce a support member by using two types of fibers which are different only in fiber fineness so that the pore size may be adjusted.

Such a lowly oriented fiber can never give such a dimensional stability as 4.0 km or more in a mean value of breaking length at an elongation of 5% in a lengthwise direction (MD) and a crosswise direction (CD), such heat shrinkage stress (0.10-0.60 g/d at 200°C) as can form uniform pores in nonwoven fabric.

Thus it is believed to be clear that the double refraction of the claimed fiber is significantly different from that of EP 043.

The Examiner also requested further chemical and physical details of the polyester fiber of this invention in order to differentiate it from the prior art product.

(ii) Heat shrinkage stress at 200°C

In order to measure heat shrinkage stress at 200°C, at least 30mm length of fiber is needed. Therefore, the heat shrinkage stress at 200°C of the fiber used by Goettmann could not be measured.

Even if the heat shrinkage stress is within the range as specified in the present invention, such a nonwoven fabric as specified in the present invention cannot be obtained when the double refraction (Δn) is not within the range of the present invention, as shown in Comparative Example 2 shown in Table 1 of the present specification.

In addition, even if the double refraction (Δn) is within the range as specified in the present invention, such a nonwoven fabric as specified in the present invention cannot be obtained when the heat shrinkage stress is not within the range of the present invention, as shown in Comparative Example 1 shown in Table 1 of the present specification.

2. With respect to nonwoven fabric

(i) With respect to breaking length at an elongation of 5% in a lengthwise direction (MD) and a crosswise direction (CD) of 4.0 km or more.

(a) As described on line 5, page 6 to line 17, page 7 of the Applicants' response filed August 16, 2005, the mean value of breaking length at an elongation of 5% in lengthwise direction (MD) of Goettmann is 1.15 km. The nonwoven fabric of the present invention shows 5.7 km as shown in Table 1 in the Rule 132 Declaration of Mr. Shinoki filed February 16, 2005. Thus Goettmann's value is only 20% (1.15/5.7) compared with the value (5.7) of the present invention, thus being much lower that of the present invention.

(b) The breaking length of fabric formed of P043 (60%) and EP101 (40%) is shown on page 8 of the Kuraray brochure attached to the Declaration filed October 17, 2005, a copy of which is enclosed.

The breaking length specified in JIS P8113 is in general a strength/elongation at cutting of fiber having a cutting elongation of 20% of more and shows a value higher than strength at elongation of 5%, experimentally two times as high as strength at elongation of 5%. Therefore, when the value of breaking length shown on page 8 of the brochure is converted to the value at an elongation of 5%, it can be estimated that about a half of the value of breaking length shown on page 8 of the brochure or at higher 1 km corresponds to the value of breaking length at an elongation of 5% in the present invention.

A nonwoven fabric having a breaking length at an elongation of 5% of less than 4km cannot be provided with uniform pore size distribution as shown in Table 5 of the present specification. Goettmann corresponds just to the Comparative Example in Table of the present specification.

(ii) With respect to pore size

As Comparative Examples 6 and 7 in the present specification illustrate, pore size (maximum pore diameter) of 42 μm or less cannot be achieved even if the nonwoven fabric has an air permeability within the present invention.

According to Goettmann, the substrate of nonwoven fabric cannot be produced as described in detail below. Even if the substrate of nonwoven fabric could be produced according to Goettmann, the Applicants submit that Goettmann is merely the same prior art as Shinjo et al. (4,795,559). Goettmann fails to raise a *prima facie* case of obviousness, because Goettmann (indicated by the Examiner on line 3, page 3 to line 12, page 4 of the Office Action Summary) does not disclose the claimed elements any more than Shinjo et al. Please compare the *prima facie* rejection based on Shinjo et al. from the bottom line of page 3 to the bottom line of page 4 of the final Official Action dated March 4, 2004 with that based on Goettermann from line 1 to line 12 on page 5 of the Official Action dated December 23, 2005.

Therefore, the Applicants submit that the Declaration attached to the response filed February 16, 2005 is relevant to overcome the Examiner's reasoning based upon Goettmann.

3. Can Goettmann be an effective prior art reference?

As mentioned below, Goettmann does not disclose the invention so that a person in the art can prepare the web. In other words, the reverse osmosis support substrate itself does not exist although Goettmann describes the specification. In addition, Goettmann includes incorrect description.

Such a prior art as Goettmann can never be "enabling" prior art. One of ordinary skill in the art would not be capable of practicing the claimed invention from the disclosure of Goettmann. Therefore, the present invention cannot be obvious based on Goettmann. See MPEP 2121.

(1) Nonwoven fabric cannot be prepared according to Goettman

The Applicant made a retest of Goettmann in a manner as close as possible to the method described on lines 28-37 in column 5 and line 64 in column 6 to line 19 in column 7 of Goettmann, as follows. "Part(s)" means "Part(s) by weight" below.

30 parts of polyethylene terephthalate (PET) fiber having fineness of 0.5 De ("Tepyrus" made by Teijin K.K.) And fiber length of 5mm, 30 parts of PET fiber having fineness of 1.5 De and fiber length of 5mm ("Tepyrus" made by Teijin K.K.), 35 parts of core/shell binder fiber (melting point of shell in 356°F (180°C) and the core is made of 100% PET) having fineness of 4.0 De and fiber length of 5mm ("MELTY" made by UNITIKA K.K.), and 5 parts of core/shell binder fiber (melting point of shell is 266°F (130°C) and the core is made of 100% PET) having fineness of 4.0 De and fiber length of 5mm ("MELTY" made by UNITIKA K.K.) were put into a porcher filled with water. The amount of water was adjusted so that the fiber content was about 3.0%. The fibers were stirred and mixed uniformly and the resultant was transferred to a head tank of a cylinder paper machine according to a conventional paper-making method. The water amount was adjusted to give a slurry content of 0.01%. Polyethylene glycol type viscosity improver ("ALKOX SW" made by Meisei Kasei K.K.) was added at the content of 0.1% to fiber.

A web was prepared under such conditions as the speed of the paper-making machine of 40m/min, the temperature (surface) of Yankee drier of 135°C. The basic weight was 76.7 g/m^2 (=46.0 $lb/3000ft^2$). The obtained web was slit into 25 cm width.

The temperature of upper and lower metal rollers in the machine (25FF-200E) made by Kumagai Rikougi Kogyo K.K.) was set at 190°C (374°F). The web was fed under such conditions as linear pressure of 72 kg/cm (=400pli) and speed of 10 m/min. The web fused on the rollers, adhered and curled to the rollers and transformed into film under pressure between the rollers. No sample could be prepared.

Table 1 surprise the Applicants because the physical properties of the product that cannot be produced are shown.

(2) Incorrect Description or Disclosure

(i) With respect to Fig. 2

Fig. 2 shows an apparatus for preparing a web as described on lines 11-27 of column 5 of Goettmann. There is no support member for a web between the machine 26 and the roller 30. The roller, rather, is pressing the web 32. Such a structure of apparatus may be used when the web is formed of wooden pulps which can entrain water and the web is condensed with the pulp fibers because the web form can be kept by surface tension of water. Hydrophobic fibers entrain almost no water after going out of the machine 32. Therefore, the web form cannot be kept and the web goes to fiber pieces immediately after the web leaves the machine 28.

Please note that the above retest by the Applicant was made using a production system other than the system of Fig. 2 because no web form can be produced by the Fig. 2 system.

(ii) With respect to lines 31-34 in column 3

Goettmann describes on lines 31-34 in column 3 that "(b) as the polyester length increases at constant denier and amount, the tensile and tear strengths in the MD and CD direction .... increase and the stiffness decreases".

However, when the fiber length increases, tangle of fibers occurs and the tensile strength rather decreases. For example, PET fiber of 1.5 De shows maximum tensile strength at about 5-6mm in fiber length. When the fiber is shorter than that, the maximum strength cannot be achieved unless the fiber length is made short.

In summary, it is respectfully submitted that the claimed invention is patentably distinct and not obvious from the cited reference.

In view of the foregoing, favorable reconsideration and allowance is solicited.

Respectfully submitted,

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